

HYDROCARBON GENERATION AT THE SUBDUCTION ZONE OFF COSTA RICA

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Accumulation of sedimentary organic matter at subduction zones and generation, migration and accumulation of hydrocarbons are of great importance for the understanding of the carbon cycle. Input of organic carbon takes place along subduction zones. The input is controlled by often high bioproductivity in near-shore areas and high rates of clastic sedimentation which includes the deposition of terrigenous and resedimented organic material. In accreted and subducted sediments generation of hydrocarbons take place. This is done either by microbial activity or thermally induced cracking of kerogen. In this presentation we focus on the thermally generated hydrocarbons. We applied the technique of basin modelling to a subduction zone. We will present our results of this 2D- and 3D-study.